

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF APPEALS AND INTERFERENCES

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| In re application of |) | |
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| WOUTER D. BERGGREN |) | |
| |) | |
| Serial No. 10/531,567 |) | Group Art Unit: 3651 |
| |) | |
| Filed April 14, 2005 |) | Examiner: Joseph A. Dillon, Jr. |
| |) | |
| VESSEL FOR STORING PARTICULATE |) | January 16, 2008 |
| MATTER AND DISCHARGE DEVICE FOR |) | |
| USE IN THE SAME |) | |
| |) | |

COMMISSIONER FOR PATENTS
P. O. Box 1450
Alexandria, VA 22313-1450

Sir:

APPEAL BRIEF

Applicant hereby submits this Appeal Brief in order to appeal the Final Rejection of claims 12-15 and 23-28 in the Office Action mailed March 26, 2007. Please charge the \$510 fee for the filing of this brief and any other fees due in connection with this appeal to Shell Oil Company Deposit Account No. 19-1800.

Real Party in Interest

The real party in interest is Shell Oil Company.

Related Appeals and Interferences

To the best of the undersigned's knowledge, there are no related appeals or interferences.

Status of the Claims

Claims 12-15 and 23-28 were all rejected in a Final Office Action mailed March 26, 2007 and are on appeal. A response after final was filed on July 26, 2007 proposing amendments to claims 12, 24 and 26. In an Advisory Action mailed August 24, 2007, the Examiner indicated that the amendments to claims 12, 24 and 26 would be entered. Claims 3-11, 16-22 and 29-35 have been withdrawn from consideration as being directed to a nonelected invention.

Status of Amendments

The amendments to claims 12, 24, and 26 filed on July 26, 2007 have been entered. Accordingly, the claims on appeal include these amendments.

Summary of Claimed Subject Matter

The claims on appeal include two independent claims, numbers 12 and 24. Claim 12 is directed to a discharge device for use in a vessel for storing particulate matter. Claim 24 is directed to a vessel for storing particulate matter comprising at a bottom portion thereof, at least one discharge device.

With respect to independent claim 12, the converging outer shell and the permeable converging inner shell of the discharge device are discussed at page 5, line 27 to page 7, line 13 of the specification. The upper rim of the inner shell is discussed at page 6, lines 4 to 9 of the specification. The use of a gasket to seal the connection between the inner shell and the outer shell is disclosed on page 6, lines 7 to 9 of the specification.

With respect to independent claim 24, the vessel for storing particulate matter is disclosed on page 5, lines 4 to 7 of the specification. As with claim 12, the converging outer shell and permeable converging inner shell of the discharge device are discussed at page 5, line 27 to page 7, line 13 of the specification. The connection of the discharge device to the main part by means of flanges 11 and 9 is discussed at page 5, lines 7 to 9 of the specification. Again, as discussed above with respect to claim 12, the use of a gasket to seal the connection between the inner shell and the outer shell of the discharge device is discussed at page 6, lines 7 to 9.

Dependent claim 26 further defines independent claim 24 through intermediate dependent claim 25. Claim 26 adds the limitation that the inner shell is secured to the inner wall of the outer shell by means of at least one lug or ring provided on the inner wall of the second flange. This ring is discussed at page 5, line 32 to page 6, line 3, of the specification. Likewise, claim 15 adds this same limitation to claim 12 through intermediate claims 13 and 14.

Dependent claim 28 adds the limitation to claim 24 that the upper rim of the inner shell extends at least substantially flush with the face of the second flange. This feature is discussed at page 6, line 9 to 12 of the specification.

Grounds of Rejection to be Reviewed on Appeal

In the Final Office Action, claims 12 to 15 and 24 to 28 were rejected under 35 USC §102 as being anticipated by Walters (4,413,758). Claims 12 to 15 and 23 to 28 were rejected under 35 USC §103 as being obvious over Walters. Finally, claims 12 to 14 and 23 to 27 were rejected under 35 USC §103 as being obvious over Anderson (3,254,766).

Argument

Rejection of Claims 12 to 15 and 24 to 28 under 35 USC §102 over Walters

In the Office Action, claims 12-15 and 24-28 were rejected under 35 USC 102(b) as being anticipated by Walters, substantially as applied on 6/30/06. However, the Office Action dated 6/30/06 does not indicate how Walters anticipates these claims and Applicant submits that the claims are not anticipated.

Both independent claims, numbers 12 and 24, contain the limitation that the connection between the inner shell and the outer shell is sealed by means of a gasket. Applicant submits that there is no teaching or suggestion of a gasket performing such a sealing function in the Walters patent. The Walters patent merely teaches stretching the inner sleeve over the outer faces of the flanges on the ends of the outer sleeve and securing it in place by a retainer ring or some other structure such as the air-flow base. See column 2, lines 39-47 of the Walters patent. See also column 3, lines 51-59.

Accordingly, Applicant submits that claims 12 and 24 are not anticipated by the Walters reference and therefore, the remaining claims which are all dependent from one of these two claims are also not anticipated.

Claim 26 provides that the inner shell is second to the inner wall of the outer shell by means of at least one lug or ring provided on the inner wall of the second flange. Since the Walters reference does not disclose such an element, claim 26 is not anticipated.

Further, dependent claims 15 and 28 each add the limitation that the upper rim of the inner shell extends at least substantially flush with the face of the second flange. Applicant submits that this feature is neither taught nor suggested by Walters. As discussed above, in Walters, the inner sleeve is stretched over the flange to be secured in place. Thus, with respect to this particular limitation, the inner shell does not extend substantially flush with the face, rather it extends over the face. Accordingly, Applicant submits that claims 15 and 28 are not anticipated by Walters.

Rejection of Claims 12-15 and 23-28 under 35 USC §103 over Walters

In the Office Action, the Examiner did not articulate any reason as to why claims 12-15 and 23-28 would have been obvious over Walters. Under the Supreme Court's recent decision in KSR International Company v. Teleflex Inc., 127 S.Ct. 1727 (2007), the Examiner must articulate the reasoning behind his assertion that the claims would have been obvious. The Examiner has not done this in this case.

Further, as discussed above, the Walters reference does not disclose nor suggest all of the features of the claims. Accordingly, Applicant submits that without another reference disclosing those features and without an articulated reason as to why it would be obvious to combine the teachings or an articulated reason as to why the missing features would have been obvious in and of themselves, that the current claims of the application would not have been obvious over Walters.

Rejection of Claims 12-14 and 23-27 under 35 USC §103 over Anderson

In the Office Action, the Examiner acknowledged that with regard to claims 12 and 24, Anderson is silent with respect to a gasket. Applicant agrees that Anderson does not teach the use of a gasket to seal the inner shell and the outer shell. However, the Examiner simply stated, "It would have been obvious to modify Anderson (3,254,766) to provide a gasket in order to increase efficiency." Applicant respectfully disagrees. There is no teaching or suggestion on how a gasket could be added to Anderson nor is there any teaching or suggestion that a gasket might be necessary nor has the Examiner articulated how the use of a gasket would increase the

efficiency of Anderson. The Examiner has failed in establishing a *prima facie* case of obviousness with respect to independent claims 12 and 24.

As discussed above, dependent claims 15 and 28 have the limitation that the upper rim of the inner shell extends at least substantially flush with the upper rim of the flange forming the upper rim of the outer shell. Applicants submits that this feature is neither taught nor suggested by the Anderson reference. In Anderson, the upper end of the inner perforated screen is attached peripherally to the inside wall of the lower hopper section. See column 2, lines 50-60.

Accordingly, Applicant respectfully submits that this feature would not have been obvious in view of Anderson and that the Examiner has failed to establish a *prima facie* case of obviousness.

Conclusion

Based on the foregoing arguments, Applicant asserts that the claims of the present application are not anticipated by and would not have been obvious in view of these cited references. It is respectfully requested that this appeal be upheld and that the application be sent back to the Examiner for allowance.

Respectfully submitted,

WOUTER D. BERGGREN

P. O. Box 2463
Houston, Texas 77252-2463

By /Craig M. Lundell/
Their Attorney, Craig M. Lundell
Registration No. 30,248
(713) 241-2475

CLAIMS APPENDIX

1 – 2. (Canceled)

3. (Withdrawn) A vessel for storing particulate matter, comprising a main part and, at a bottom portion thereof, at least one discharge device, which comprises a converging outer shell and a permeable, converging inner shell positioned in the outer shell, the discharge device being connected to the main part by means of a first flange at or near a lower rim of the bottom portion of the main part and a second flange at or near an upper rim of the outer shell, whereby the inner shell is secured at or near its upper rim to an inner wall of the outer shell of the discharge device, wherein said inner wall comprises an inner wall of the second flange, wherein the inner wall of the second flange is provided with at least one lug or ring and the inner shell is attached to this lug or ring.

4. (Withdrawn) The vessel of claim 3, wherein an element for matching an inner wall of the main part of the vessel to an inner wall of the inner shell has been attached to an inner wall of the first flange.

5. (Withdrawn) The vessel of claim 3, wherein the upper rim of the inner shell extends at least substantially flush with the face of the second flange.

6. (Withdrawn) The vessel of claim 5, wherein the connection between the inner shell and the outer shell is sealed by means of a gasket.

7. (Withdrawn) The vessel of claim 3, wherein the inner shell is secured at or near its upper rim to the inner wall of the outer shell of the discharge device to avoid clamping a flange forming the upper rim of the inner shell between said first flange and second flange.

8. (Withdrawn) A vessel for storing particulate matter, comprising a main part and, at a bottom portion thereof, at least one discharge device, which comprises a converging outer shell and a

permeable, converging inner shell positioned in the outer shell, the discharge device being connected to the main part by means of a first flange at or near a lower rim of the bottom portion of the main part and a second flange at or near an upper rim of the outer shell, whereby the outer shell comprises, at a bottom portion thereof, a third flange and whereby a lower end portion of the inner shell is essentially cylindrical and positioned in line with a central opening of the third flange and/or extends through this opening.

9. (Withdrawn) The vessel of claim 8, wherein a stuffing box assembly is positioned between the cylindrical lower portion of the inner shell and the outer shell, which assembly seals a cavity defined by the inner shell and the outer shell.

10. (Withdrawn) The vessel of claim 3, wherein all the said flanges are standardized flanges.

11. (Withdrawn) The vessel of claim 3, wherein the outer shell is provided with at least one inlet for injecting gas into a cavity defined by the outer shell and the inner shell, which inlet runs substantially perpendicular to the central axis of the vessel.

12. A discharge device for use in a vessel for storing particulate matter, comprising a converging outer shell and a permeable, converging inner shell positioned in the outer shell, the inner shell comprising an upper rim, wherein the inner shell is secured at or near its upper rim to an inner wall of the outer shell forming a connection between the inner shell and the outer shell, wherein the connection between the inner shell and the outer shell is sealed by means of a gasket.

13. The discharge device of claim 12, wherein the inner shell has been attached to the inner wall of the outer shell.

14. The discharge device of claim 13, comprising a flange forming the upper rim of the outer shell, the inner shell being attached to an inner wall of this flange.

15. The discharge device of claim 14, wherein the upper rim of the inner shell extends at least substantially flush with the upper rim of the said flange.
16. (Withdrawn) The vessel claim 8, wherein all the said flanges are standardized flanges.
17. (Withdrawn) The vessel of claim 8, wherein the outer shell is provided with at least one inlet for injecting gas into the cavity defined by the outer shell and the inner shell, which inlet runs substantially perpendicular to the central axis of the vessel.
18. (Withdrawn) The vessel of claim 3, wherein the particulate matter comprises at least one of pulverized coal and fly ash.
19. (Withdrawn) The vessel of claim 3, wherein a gasket is positioned between the lug or ring and the inner shell.
20. (Withdrawn) The vessel of claim 8, wherein the particulate matter comprises at least one of pulverized coal and fly ash.
21. (Withdrawn) The vessel of claim 8, wherein the inner shell is secured at or near its upper rim to an inner wall of the outer shell of the discharge device.
22. (Withdrawn) The vessel of claim 8, wherein an inner wall of the second flange is provided with at least one lug or ring and the inner shell is attached to this lug or ring.
23. The vessel of claim 12, wherein the particulate matter comprises at least one of pulverized coal and fly ash.
24. A vessel for storing particulate matter, comprising a main part and, at a bottom portion thereof, at least one discharge device, which comprises a converging outer shell and a permeable, converging inner shell positioned in the outer shell, the inner shell comprising an upper rim, the

discharge device being connected to the main part by means of a first flange at or near a lower rim of the bottom portion of the main part and a second flange at or near an upper rim of the outer shell, whereby the inner shell is secured at or near its upper rim to the inner wall of the outer shell of the discharge device thus forming a connection between the inner shell and the outer shell, wherein the connection between the inner shell and the outer shell is sealed by means of a gasket.

25. The vessel of claim 24, wherein the inner shell has been attached to an inner wall of the second flange.

26. The vessel of claim 25, wherein the inner shell is secured at or near its upper rim to the inner wall of the outer shell by means of the inner wall of the second flange is provided with at least one lug or ring and provided on the inner wall of the second flange, to which lug or ring the inner shell is attached to this lug or ring, whereby the gasket is positioned between the lug or ring and the inner shell.

27. The vessel of claim 24, wherein an element for matching an inner wall of the main part of the vessel to an inner wall of the inner shell has been attached to an inner wall of the first flange.

28. The vessel of claim 24, wherein the upper rim of the inner shell extends at least substantially flush with the face of the second flange.

29. (Withdrawn) A discharge device for use in a vessel for storing particulate matter, comprising a converging outer shell, a flange forming an upper rim of the outer shell, and a permeable, converging inner shell positioned in the outer shell, wherein an inner wall of the second flange is provided with at least one lug or ring and the inner shell is secured at or near its upper rim to that lug or ring.

30. (Withdrawn) A discharge device, which comprises a converging outer shell and a permeable, converging inner shell positioned in the outer shell, the discharge device being provided with a second flange at or near an upper rim of the outer shell which second flange is

connectable to a first flange, whereby the outer shell comprises, at a bottom portion thereof, a third flange and whereby a lower end portion of the inner shell is cylindrical and positioned in line with a central opening of the third flange and/or extends through this opening.

31. (Withdrawn) A vessel for storing particulate matter, comprising a main part and, at a bottom portion thereof, at least one discharge device, which comprises a converging outer shell and a permeable, converging inner shell positioned in the outer shell, the discharge device being connected to the main part by means of a first flange at or near a lower rim of the bottom portion of the main part and a second flange at or near an upper rim of the outer shell, whereby the inner shell is secured at or near its upper rim to an inner wall of the outer shell of the discharge device, wherein an element for matching the inner wall of the main part of the vessel to the inner wall of the inner shell has been attached to the inner wall of the first flange.

32. (Withdrawn) The vessel of claim 31, wherein the upper rim of the inner shell extends at least substantially flush with the face of the second flange.

33. (Withdrawn) The vessel of claim 31, wherein the conicity of an inner wall of the element matches that of the inner wall of the inner shell.

34. (Withdrawn) The vessel of claim 31, wherein the element is an annular element.

35. (Withdrawn) The vessel of claim 31, wherein the element has been welded to the inner wall of the first flange.

EVIDENCE APPENDIX

None.

RELATED PROCEEDINGS APPENDIX

None.